

SN 09/520,538

Docket No. S-91,714

In Response to Office Action dated November 17, 2003

**AMENDMENTS TO THE CLAIMS:**

The following listing of claims replaces all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1-26. (Cancelled).

27. (Currently Amended) ~~The method according to claim 26,~~ A method for enhancing transcriptional activation of a reporter gene under the control of a promoter regulated by a DmpR protein, said DmpR protein comprising a sensor domain, in bacteria selected from the group consisting of *Pseudomonas* and *Escherichia coli*, in response to phenols and substituted phenols, wherein said phenols and substituted phenols are selected from the group consisting of phenol, 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4-dimethylphenol, 4-nitrophenol, and 2 nitrophenol, over the transcriptional activation exhibited by wild type bacteria of the same strain, said method comprising the steps of subjecting a DNA encoding the DmpR protein sensor domain to mutagenic polymerase chain reaction, ligating a mutated sensor domain fragment generated thereby into a DNA encoding the DmpR protein from which a corresponding sensor domain fragment has been removed, and testing the bacteria for enhanced response to said phenols and substituted phenols over the response thereto for wild type bacteria without altering other domains.

28. (Currently Amended) ~~The method according to claim 26,~~ A method for enhancing transcriptional activation of a reporter gene under the control of a promoter regulated by a DmpR protein, said DmpR protein comprising a sensor domain, in bacteria selected from the group consisting of *Pseudomonas* and *Escherichia coli*, in response to phenols and substituted phenols, over the transcriptional activation exhibited by wild type

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bacteria of the same strain, said method comprising the steps of subjecting a DNA encoding the DmpR protein sensor domain to mutagenic polymerase chain reaction, ligating a mutated sensor domain fragment generated thereby into a DNA encoding the DmpR protein from which a corresponding sensor domain fragment has been removed, and testing the bacteria for enhanced response to said phenols and substituted phenols over the response thereto for wild type bacteria without altering other domains, wherein the mutagenic polymerase chain reaction is conducted with the primers dmpR5'-75 (SEQ ID NO: 16) and dmpR3'-976 (SEQ ID NO: 17).

29. (Previously Presented) The method according to claim 27, wherein the transcriptional activation of the reporter gene is enhanced by at least 4-fold.